

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:

H. Craig DEES et al

Serial No.: 09/817,448

Filed: March 26, 2001

Art Unit: 1641

For: INTRACORPOREAL MEDICAMENTS FOR
HIGH ENERGY PHOTOTHERAPEUTIC
TREATMENT OF DISEASE



I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to:
Commissioner for Patents, P.O. Box 1450,
Alexandria, VA 22313-1450, on June 5, 2003

Cristie M. Nell

Date: June 5, 2003

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Pursuant to 37 C.F.R. §1.97, as revised on February 4, 1992, 1135 OG 23-24, Applicant hereby calls the Examiner's attention to documents listed on the attached form, which documents may be material to the examination of this application. A copy of each of the references was submitted to the Patent Office or was cited by the Examiner in the parent application(s), serial no. 09/216,787 filed on December 21, 1998, which is(are) being relied upon under 35 USC §120, or application serial no. 09/382,622 filed August 25, 1999, which is a divisional application of the '787 application.

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Other applications possibly related to the present invention include:

US Patent Application No. 09/382,622 (pending)

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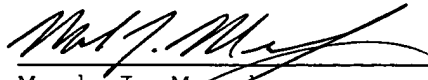
No inference should be drawn that the attached list sets forth a comprehensive investigation of the prior art, that any or all are pertinent to the invention, or that any apparatus disclosed is equivalent to the subject invention.

The citation of the above-discussed documents is not to be construed as an assertion that more pertinent art could not possibly be in existence. Citation of any document herein is not to be construed as an admission that any subject matter disclosed in the document is necessarily within the inventive field of endeavor, that any disclosure is necessarily prior in time to a particular date which may be relevant to the instant patent application, and/or that any disclosure is otherwise necessarily prior art with respect to the instant invention.

Applicant also respectfully reserves the right to later set forth how the instant invention is distinguished over the disclosure of any document or other art, including the disclosure of those documents discussed herein, that may be cited by the Examiner in rejecting a claim in the instant patent application.

A first office action, notice of allowance or issue fee notification has been received in this case, so a check in the amount of \$180 is enclosed. If any additional fee is required, please charge our Deposit Account No. 50/1039.


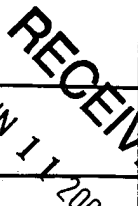
Respectfully submitted,

A handwritten signature in dark ink, appearing to read "Mark J. Murphy", is written over a horizontal line.

Mark J. Murphy

Registration No.: 34,225

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<div style="display: flex; align-items: center; justify-content: center;"> <div style="text-align: center;">  </div> <div style="margin-left: 20px;"> <p><u>Attorney Docket No.</u> PHO-120</p> <p><u>Applicant</u> H. Craig DEES et al</p> <p><u>Filing Date</u> March 26, 2001</p> </div> <div style="margin-left: 20px;"> <p><u>Serial No.</u> 09/817,448</p> <p><u>Group</u> 1641</p> </div> </div>			<div style="display: flex; align-items: center; justify-content: center;"> <div style="text-align: center;">  </div> <div style="margin-left: 20px;"> <p><u>TECH CENTER 1600/2900</u></p> </div> </div>			
U.S. PATENT DOCUMENTS						
*Examiner Initial	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	4,599,227	07/08/86	Dees et al	424	38	11/07/83
	4,973,848	11/27/90	Kolobanov et al	250	458.1	07/28/89
	5,128,139	07/07/92	Brown et al	424	450	02/15/91
	5,149,801	09/22/92	Kahl et al	540	145	11/21/90
	5,284,831	02/08/94	Kahl et al	514	21	04/16/92
	5,576,013	11/19/96	Williams et al	424	423	03/21/95
	5,591,422	01/07/97	Heremi et al	424	362	06/06/95
	5,654,423	08/05/97	Kahl et al	540	145	05/23/95
	5,827,186	10/27/98	Chen et al	600	407	04/11/97
	5,829,448	11/03/98	Fisher et al	128	898	10/30/96
	5,832,931	11/10/98	Wachter et al	128	898	10/30/96
	5,998,597	12/07/99	Fisher et al	536	23.1	12/11/97
	6,042,603	03/28/00	Fisher et al	607	89	05/04/98
FOREIGN PATENT DOCUMENTS						
	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	WO 00/25819	05/11/00	General Hospital Corp.			10/29/99
	WO 00/25829	05/11/00	General Hospital Corp.			10/29/99
OTHER PUBLICATIONS (Including Author, Title, Date, Pertinent Pages)						
	<p>1) Fisher et al, "Clinical and Preclinical Photodynamic Therapy," Lasers in Surgery and Medicine, vol. 17, pp. 2-31, 1995.</p> <p>2) Young, S. et al, "Gadolinium(III) Texaphyrin: A Tumor Selective Radiation Sensitizer that is Detectable by MRI," Proc. Natl. Acad. Sci., vol. 93, pp. 6610-6615, June, 1996.</p> <p>3) Bernhard, E.J. et al, "Re-Evaluating Gadolinium(III) Texaphyrin as a Radiosensitizing Agent," Cancer Research, vol. 60, pp. 86-91, January 1, 2000.</p>					
EXAMINER:				DATE CONSIDERED:		

Substitute for form 1449/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Complete If Known

Application Number	09/817,448
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Filing Date	March 26, 2001
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First Named Inventor	Dees et al
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Art Unit	1641
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Examiner Name

Attorney Docket Number	PHO-120
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Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
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4	THE JOURNAL OF ORGANIC CHEMISTRY 57(1992) JULY 31, no. 16, Washington, DC pps 4418-4421
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**Examiner
Signature**

Date
Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

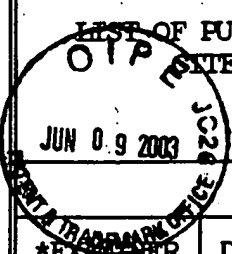
¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: **Commissioner for Patents, Washington, DC 20231.**

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

LIST OF PUBLICATIONS/MATERIALS CITED BY APPLICANT			<u>Attorney Docket No.</u> PHO-120		<u>Serial No.</u> 09/817,448	
			<u>Applicant</u> H. Craig DEES et al		RECEIVED TECH CENTER 1600290 JUN 11 2003	
			<u>Filing Date</u> March 26, 2001			
		<u>Group</u> 1641				
U.S. PATENT DOCUMENTS						
INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	3,868,950	03/04/75	Kato	128	066	11/08/73
	3,986,513	10/19/76	Stuhl	128	373	01/29/76
	4,066,650	01/03/78	Egyud	260	281.G	02/25/75
	4,172,979	10/30/79	Morrison	250	505	06/15/78
	4,241,060	12/23/80	Smithen	424	248.57	08/03/78
	4,282,232	08/04/81	Agrawal	424	267	04/26/79
	4,371,540	02/01/83	Lee et al	424	273.R	08/22/80
	4,444,189	04/24/84	Seiverd	128	395	12/21/81
	4,462,992	07/31/84	Agrawal et al	424	180	02/08/82
	4,652,562	03/24/87	Berenyi nee Poldermann	514	237	06/04/86
	4,681,091	07/21/87	Picker et al	128	001.R	11/27/85
	4,691,332	09/01/87	Burstein et al	378	007	03/14/84
FOREIGN PATENT DOCUMENTS						
	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	FILING DATE

OTHER PUBLICATIONS/MATERIALS (Including Author, Title, Date, Pertinent Pages)	
EXAMINER:	DATE CONSIDERED:
*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP form. Draw line through citation if not in conformance and not considered. Include a copy of this form with the next communication to applicant.	

LIST OF PUBLICATIONS/MATERIALS SUBMITTED BY APPLICANT 			<u>Attorney Docket No.</u> PHO-120		<u>Serial No.</u> 09/817,448	
			<u>Applicant</u> H. Craig DEES et al.			
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U.S. PATENT DOCUMENTS						
<u>*EXAMINER</u> INITIAL	<u>DOCUMENT</u> NUMBER	<u>DATE</u>	<u>NAME</u>	<u>CLASS</u>	<u>SUB-CLASS</u>	<u>FILING</u> DATE
	4,820,258	04/11/89	Mondain-Morval	600	001	03/24/87
	4,856,528	08/15/89	Yang et al	128	653	06/26/87
	4,880,821	11/14/89	Saari	514	331	08/17/88
	4,897,423	01/30/90	Saari et al	514	603	08/02/88
	4,921,963	05/01/90	Skov et al	548	101	04/13/87
	4,927,941	05/22/90	Kagiya et al	548	264.8	06/09/88
	4,945,102	07/31/90	Suzuki et al	514	398	09/21/88
	4,954,515	09/04/90	Suto	514	398	11/25/88
	4,977,273	12/11/90	Kagiya et al	548	339	12/12/89
	5,008,907	04/16/91	Norman et al	378	065	05/31/89
	5,026,694	06/25/91	Skov et al	514	184	06/30/89
	5,036,089	07/30/91	Suto	514	376	06/04/90
	5,036,096	07/30/91	Suto	514	398	06/04/90
FOREIGN PATENT DOCUMENTS						
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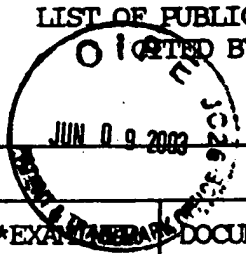
OTHER PUBLICATIONS/MATERIALS (Including Author, Title, Date, Pertinent Pages)	
	1. Bezman, S.A. et al, "Photodynamic Inactivation of E. Coli by Rose Bengal Immobilized on Polystyrene Beads," Biochemistry and Photobiology, vol. 28, pp. 325-329, 1978.

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<p>LIST OF PUBLICATIONS/MATERIALS CITED BY APPLICANT</p> <p>OTPA JUN 09 2003</p>			<u>Attorney Docket No.</u> PHO-120		<u>Serial No.</u> 09/817,448	
			<u>Applicant</u> H. Craig DEES et al.		<p>RECEIVED JUN 11 2003 TECH CENTER 1600/2003</p>	
			<u>Filing Date</u> March 26, 2001			
U.S. PATENT DOCUMENTS						
<u>*EXAMINER</u> INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	5,053,006	10/01/91	Watson	604	52	04/02/90
	5,064,849	11/12/91	Suzuki et al	514	383	04/18/90
	5,147,652	09/15/92	Egyud	424	450	07/03/90
	5,175,287	12/29/92	Lee et al	544	183	09/18/89
	5,215,738	06/01/93	Lee et al	424	010	06/01/90
	5,270,330	12/14/93	Suzuki et al	514	398	07/24/92
	5,294,715	03/15/94	Papadopolou-Rosenzweig et al	546	106	02/01/91
	5,302,369	04/12/94	Day et al	424	001.29	08/29/91
	5,304,654	04/19/94	Kagiya et al	548	327.5	09/09/91
	5,342,959	08/30/94	Beylin et al	548	327.5	08/05/93
	5,457,183	10/10/95	Sessler et al	534	011	10/12/93
	5,481,000	01/02/96	Beylin et al	548	229	12/19/94
	5,543,527	08/06/96	Beylin et al	548	110	05/18/95
	5,591,422	01/07/97	Hemmi et al	424	009.36	06/06/95
	5,599,923	02/04/97	Sessler et al	540	145	02/15/94
	5,601,802	02/11/97	Hemmi et al	424	009.36	06/07/95
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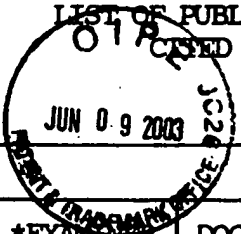
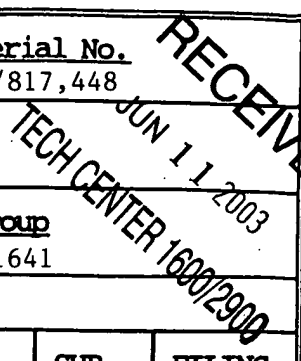
<p align="center">OTHER PUBLICATIONS/MATERIALS (Including Author, Title, Date, Pertinent Pages)</p>	
	<p>2. Fluhler, E.N. et al, "Laser Intensity and Wavelength Dependence of Rose Bengal Photosensitized Inhibition of Red Blood Cell Acetylcholinesterase," Biochimica et Biophysica Acta, 990, pp. 269-275, 1989.</p>

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U.S. PATENT DOCUMENTS						
*EXAMINER'S INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	5,602,142	02/11/97	Papadopolou-Rosenzweig	514	290	12/21/94
	5,616,584	04/01/97	Lee et al	514	243	01/26/95
	5,622,946	04/22/97	Sessler et al	514	185	05/10/95
	5,624,925	04/29/97	Lee et al	514	243	01/26/95
	5,641,764	06/24/97	Martin et al	514	080	05/15/95
	5,654,423	08/05/97	Kahl et al	540	145	05/23/95
	5,659,048	08/19/97	Beylin et al	548	327.5	05/23/95
	5,700,825	12/23/97	Hofer et al	514	397	03/31/95
	5,780,653	07/14/98	Tao et al	549	510	06/07/95
	5,829,448	11/03/98	Fisher et al	128	898	10/30/96
	5,832,931	11/10/98	Wachter et al	128	898	10/30/96
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	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	FILING DATE

OTHER PUBLICATIONS/MATERIALS (Including Author, Title, Date, Pertinent Pages)	
	3. Huang, A.J.W. et al, "Photothrombosis of Corneal Neovascularization by Intravenous Rose Bengal and Argon Laser Irradiation," Arch Ophthalmol, vol. 106, pp. 680-685, May, 1988. Neckers, D.C., "Rose Bengal," Journal of Photochemistry and Photobiology, A. Chemistry, vol. 47, pp. 1-29, 1989.

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	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	FILING DATE

OTHER PUBLICATIONS/MATERIALS (Including Author, Title, Date, Pertinent Pages)	
	4. Norman, A. et al, "X-Ray Phototherapy for Solid Tumors," Acad Radiol, vol. 5, (suppl 1) pp. s177-179, April, 1998. 5. Norman, A. et al, "Point/Counterpoint: Radiation Doses in Radiation Therapy are not Safe," Med. Phys. vol. 24 (11), pp. 1710-1713, November, 1997. 6. Matsudaira, H. et al, "Iodine Contrast Medium Sensitizes Cultured Mammalian Cells to X Rays but not to Gamma Rays," Radiation Research, vol. 84, pp. 144-148, 1980. 7. Norman, A. et al, "Iodinated Contrast Agents for Brain Tumor Localization and Radiation Dose Enhancement," Invest. Radiol, vol. 26, pp. s120-1221, 1991. 8. Rubin, D. et al, "Nanoparticulate Contrast Media, Blood-Pool and Liver-Spleen Imaging," Investigative Radiology, vol. 29, suppl. 2, pp. s280-283, 1994.

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	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	FILING DATE

OTHER PUBLICATIONS/MATERIALS (Including Author, Title, Date, Pertinent Pages)	
	9. Budavari, S., ed. et al, <u>The Merck Index</u> , Merck & Co., Inc., 11th ed., p. 4943, 1989. 10. Iwamoto, K.S. et al, "Radiation Dose Enhancement Therapy with Iodine in Rabbit VX-2 Brain Tumors," Radiation Therapy and Oncology, vol. 8, pp: 161-170, 1987. 11. Miller, R.W. et al, "Evaluation of Incorporated Iododeoxyuridine Cellular Radiosensitization by Photon Activation Therapy," Int. J. Radiation Oncology, Biol. Phys., vol. 13, pp. 1193-1197, 1987. 12. Zajusz, A. et al, "Normobaric Oxygen as a Sensitizer in Radiotherapy for Advanced Head and Neck Cancer," Neoplasma, vol. 42, number 3, pp. 137-140, 1995. 13. United States Statutory Invention Registration No. H505 to Slatkin et al, for BORON UPTAKE IN TUMORS, CEREBRUM AND BLOOD FROM [^{10}B]NA $_2$ B $_2$ H $_2$ S $_2$, published August 2, 1988.

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Notice of References Cited

Application No.
09/817,448

Applicant(s)

Desai et al.

Examiner

Group Art Unit
1641

JUN 09 2003

U.S. PATENT DOCUMENTS

	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS
A	US 5,780,952	1/1998	Khaw et al.	424	450
B	US 5,225,182	1/1998	Sharma	424	9
C	US 5,008,907	04/16/91	Norman et al	378	65
D	US 5,019,368	05/28/91	Epstein et al	424	1.1
E	US 5,567,765	10/22/96	Moore et al	524	801
F	US 5,676,928	10/14/97	Klaveness et al	424	9.321
G	US 5,733,572	03/31/98	Unger et al	424	450
H	US 5,807,231	09/15/98	Liprie	600	3
I	US 4,957,481	09/18/90	Gatenby	604	20
J	US 4,490,543	12/25/84	Bergquist et al		
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FOREIGN PATENT DOCUMENTS

	DOCUMENT NO.	DATE	COUNTRY	NAME	CLASS	SUBCLASS
N	PCT/EP 96/03201	02/06/97	WO	Bottirolli et al		
O	PCT/CA 95/00485	08/16/95	WO	Gaboury et al		
P						
Q						
R						
S						
T						

NON-PATENT DOCUMENTS

	DOCUMENT (Including Author, Title, Source, and Pertinent Pages)	DATE
U	Serafini et al. Iodine-123-Rose Bengal: An improved hepatobiliary imaging agent, Journal of Nuclear Medicine, 16(7): 629-632 (1975)	1975
V	Mello, R.S. et al, "Radiation Dose Enhancement in Tumors with Iodine," Medical Physics, vol. 1, no. 1, pp. 75-78, Jan/Feb (1983).	1983
W	Serafini, et al, "Iodine-123-Rose Bengal: An Improved Hepatobiliary Imaging Agent," Journal of Nuclear Medicine (1990).	1990
X	Norman, A. et al, "X-Ray Phototherapy for Canine Brain Masses," Radiation Oncology Investigations, vol. 5, pp. 8-14, (1997).	1997